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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

REKSTAD, ERICK J

ART UNIT PAPER NUMBER

2613

DATE MAILED: 12/29/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/707,044

Applicant(s)

LINCOLN ET AL.

Examiner

Erick Rekstad

Art Unit

2613

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-45 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15, 25-28 and 32-45 is/are rejected.
- 7) ☒ Claim(s) 41 and 42 is/are objected to.
- 8) ☒ Claim(s) 16-24 and 29-31 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____.  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____. | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### **Restriction**

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-15, 25-28, and 32-45, drawn to method, apparatus and software for deconstructing video, classified in class 375, subclass 240.
- II. Claims 16-24 and 29-31, drawn to a method and system for distributing deconstructed video through a network, classified in class 725, subclass 91.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention II has separate utility such as distributing, through a network, deconstructed video produced from a deconstructing method other than invention I. See MPEP § 806.05(d).

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

During a telephone conversation with Ken Won Tong on 12/02/2003 a provisional election was made without traverse to prosecute the invention of I, claims 1-15, 25-28, and 32-45. Affirmation of this election must be made by applicant in replying to this Office action. Claims 16-24 and 29-31 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

### ***Claim Objections***

Claims 41 and 42 are objected to because of the following informalities: The claims are duplicates of claims 37 and 38 respectively. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 4, 6, 32, 33, 35, 37, 41 43, 44, and 45 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 5,621,660 to Chaddha et al.  
[claims 1, 2, 14,15, 33 and 43]

Chaddha teaches a software based method of deconstructing video, as shown in figure 2, comprising: selecting plurality of dimensions, where each dimension represents a characteristic of a video image sequence; and encoding each selected dimension to

form one or more bitstreams, as required by claims 1 and 32. The encoding step comprises: forming a base bitstream representing a first video image sequence having a first set of characteristics; and forming at least one additional bitstream, where each bitstream represents a different dimension and when said first bitstream and said at least one additional bitstream are combined to form a combined bitstream, the combined bit stream represents a reconstructed video image sequence having different characteristics than said first video image, as required by claims 2 and 33. The base stream is represents a video sequence having minimal quality, as required by claims 14 and 44. When the base stream is combined with at least one additional bitsream a video sequence having a quality that is higher than said base bitstream is formed, as required by claims 15, 43, and 45 (Col 3 Lines 11-55, Fig 2 and 3).

[claims 4 and 35]

Chaddha teaches the method of claims 1 and 32 wherein the dimensions are arranged in a partial order, where each point in the partial order represents a valid combination of dimensions for encoding the video image sequence (Col 9 Lines 27-44, Fig 3).

[claims 6, 37, and 41]

Chaddha teaches the method of claims 1 and 32 wherein each of said dimensions is orthogonal, that is, information from one dimension is not contained in another dimension (Col 5 Lines 23-30).

[claims 7, 38, and 42]

Chaddha teaches the method of claims 1 and 32 wherein said method is performed at the edge of a network (Col 4 Lines 3-33, Fig 1).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5, 10, 11, 12, 13, 25, 26, 27, 36, 39, and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chaddha in view of US Patent 5,063,603 to Burt.  
[claims 5, 10, 11, 12, 13, 25, 26, 27, and 36]

Chaddha teaches the method and apparatus of claim 1, the representing of video with a base bitstream and at least one additional bitstream, the dimensions being orthogonal, and performing the selecting step at the edge of a network. Chaddha does not teach the deconstructing of a video into components. Burt teaches the method of dividing a video into foreground, background and moving objects. Burt further teaches sending the objects to a multi-resolution pyramid processor (Col 7 Lines 8-34 and 50-67, Col 8 Lines 1-21, Figs 1 and 3). It would be obvious to one skilled in the art at the time of the invention to combine the video distribution system of Chaddha with the object detector of Burt, by sending the output of the preprocessor of Burt (Fig. 3) to the input of the video distribution system, in order to distribute the objects of the video through a network.

[claims 39 and 40]

Chaddha teaches the representation of video with a base bitstream and at least one additional bitstream. Burt teaches the use of the moving object detection to obtain objects that are humans (Abstract). It would be obvious to one skilled in that art to limit the system from above to divide the video into components that are only humans.

Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chaddha.

[claims 8 and 9]

Chaddha teaches the methods of deconstructing and reconstructing a video stream at the edge of a network where the deconstruction is done by a server and the reconstruction is done by an end user. Chaddha further teaches the server receiving the video from a video source (10 of Figure 1). Chaddha further teaches the steps used to deconstruct the video stream (60, 70, 80 and 120 of Figure 1). It would be obvious to one skilled in the art at the time of the invention that the server (20 Fig 1) is also an intermediate node in the network of Figure 1.

Claims 3 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chaddha in view of US Patent 6,477,201 to Wine et al.

[claims 3 and 25]

Chaddha teaches the method and apparatus of claims 1 and 25. Chaddha further teaches the adjusting of the frame rate with the spatial resolution to find the best possible combination for a particular bandwidth (Col 11 Lines 54-64). Chaddha does not teach dividing the video into the dimensions comprising image regions or color

depth. Wine teaches the use of adjusting the parameters that define the resolution and color depth for a specific image region based on that region's importance (Col 1 Lines 56-67, Col 2 Lines 4-10, Col 3 Lines 53-67, Col 4 Lines 1-17). It would be obvious to one skilled in the art at the time of the invention to combine the addition parameters of Wine to the system of Chaddha in order to provide the ability to adjust the image quality of image regions based on the region's importance.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent 6,392,705 to Chaddha

US Patent 5,821,986 to Yuan et al.

US Patent 5,896,176 to Das et al.

US Patent 6,301,370 to Steffens et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erick Rekstad whose telephone number is 703-305-5543. The examiner can normally be reached on 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on 703-305-4856. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9314.


Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.



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Art Unit: 2613

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